# **Laboratory Analysis Report**

Job ID: 19051780



10100 East Freeway, Suite 100, Houston, TX 77029 tel: 713-453-6060, fax: 713-453-6091, http://www.ablabs.com

Client Project Name: ITC - DP Outfall 002

Report To: Client Name: Intercontinental Terminal Company

Attn: Tyler Blankenship
Client Address: P. O. Box 698

City, State, Zip: Deer Park, TX, 77536

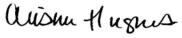
nal Company P.O.#.: 370468 Sample Collected By: C. Pilla, Cardino

Date Collected: 05/23/19 - 05/25/19

Total Number of Pages:

A&B Labs has analyzed the following samples...

Client Sample ID	Matrix	A&B Sample ID
WW-20190523-002-Day21	Water	19051780.01
WW-20190524-002-Day22	Water	19051780.02
WW-20190525-002-Day23	Water	19051780.03



Released By: Alisha Hughes
Title: Project Manager
Date: 5/29/2019



This Laboratory is NELAP (T104704213-19-20) accredited. Effective: 04/01/2019; Expires: 3/31/2020

Scope: Non-Potable Water, Drinking Water, Air, Solid, Biological Tissue, Hazardous Waste

I am the laboratory manager, or his/her designee, and I am responsible for the release of this data package. This laboratory data package has been reviewed and is complete and technically compliant with the requirements of the methods used, except where noted in the attached exception reports. I affirm, to the best of my knowledge that all problems/anomalies observed by this laboratory (and if applicable, any and all laboratories subcontracted through this laboratory) that might affect the quality of the data, have been identified in the Laboratory Review Checklist, and that no information or data have been knowingly withheld that would affect the quality of the data.

This report cannot be reproduced, except in full, without prior written permission of A&B Labs. Results shown relate only to the items tested. Samples are assumed to be in acceptable condition unless otherwise noted. Blank correction is not made unless otherwise noted. Air concentrations reported are based on field sampling information provided by client. Soil samples are reported on a wet weight basis unless otherwise noted. Uncertainty estimates are available on request.

Date Received: 05/25/2019 15:50

#### LABORATORY TERM AND QUALIFIER DEFINITION REPORT



Job ID: 19051780 Date: 5/29/2019

# General Term Definition

Back-WtBack WeightPost-WtPost WeightBRLBelow Reporting Limitppmparts per millioncfucolony-forming unitsPre-WtPrevious Weight

Conc. Concentration Q Qualifier

D.F. Dilution Factor RegLimit Regulatory Limit

Front-Wt Front Weight RPD Relative Percent Difference

LCS Laboratory Check Standard RptLimit Reporting Limit

LCSD Laboratory Check Standard Duplicate SDL Sample Detection Limit
MS Matrix Spike surr Surrogate

MS Matrix Spike surr Surrogat
MSD Matrix Spike Duplicate T Time

MW Molecular Weight TNTC Too numerous to count

J Estimation. Below calibration range but above MDL

Qualifier Definition

M2 Matrix Spike and/or Matrix Spike Duplicate recovery is below laboratory control limits due to matrix interference.

# LABORATORY TEST RESULTS

<u>a.b.</u>

Job ID: 19051780

Date 5/29/2019

Client Name: Intercontinental Terminal Company Attn: Tyler Blankenship

Project Name: ITC - DP Outfall 002

Client Sample ID: WW-20190523-002-Day21 Job Sample ID: 19051780.01

Date Collected: 05/23/19 Sample Matrix Water
Time Collected: 15:00 % Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Q	Date Time	Analyst
SM 4500CN-CG	Cyanide, Amenable Ultra Low								
	Cyanide, Amenable	<0.001	mg/L	1	0.001	0.002		05/29/19 14:15	LEB

# LABORATORY TEST RESULTS

<u>a.b.</u>

Job ID: 19051780

Date 5/29/2019

Client Name: Intercontinental Terminal Company Attn: Tyler Blankenship

Project Name: ITC - DP Outfall 002

Client Sample ID: WW-20190524-002-Day22 Job Sample ID: 19051780.02
Date Collected: 05/24/19 Sample Matrix Water

Date Collected: 05/24/19 Sample Matrix Wate Time Collected: 14:00 % Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Q	Date Time	Analyst
SM 4500CN-CG	Cyanide, Amenable Ultra Low								
	Cyanide, Amenable	<0.001	mg/L	1	0.001	0.002		05/29/19 14:15	LEB

# LABORATORY TEST RESULTS

Job ID: 19051780

Date 5/29/2019

Client Name: Intercontinental Terminal Company Attn: Tyler Blankenship

Project Name: ITC - DP Outfall 002

Client Sample ID: Job Sample ID: WW-20190525-002-Day23 19051780.03 Date Collected: Sample Matrix

05/25/19 Water Time Collected: 14:00 % Moisture

Other Information:

Test Method	Parameter/Test Description	Result	Units	DF	SDL	MQL	Q	Date Time	Analyst
ASTM D6503-14	Enterococcus								
	Enterococci	<4	mpn/100m	L 4	4.00			05/25/19 16:30	JYS
SM 3500Cr B	Hexavalent Chromium								
	Chromium, Hexavalent	<0.002	mg/L	1	0.002	0.01		05/25/19 17:00	LEB

#### QUALITY CONTROL CERTIFICATE



Analysis: Enterococcus Method: ASTM D6503-14 Reporting Units: mpn/100mL

 $\textbf{Samples in This QC Batch} \ : \quad 19051780.03$ 

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Enterococci		< MDL	mpn/100mL	4		1	

QC Type: Duplicate QC Sample ID: 19051780.03 QCSample Sample RPD Result Units **RPD** CtrlLimit Parameter Result Qual BRL BRL 40 Enterococci mpn/100m 0

#### QUALITY CONTROL CERTIFICATE



Analysis : Cyanide, Amenable Ultra Low Method : SM 4500CN-CG Reporting Units : mg/L

**Samples in This QC Batch :** 19051780.01,02

Sample Preparation: PB19052938 Prep Method: SM 4500CN-CG Prep Date: 05/28/19 10:45 Prep By: LEBell

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Cyanide, Amenable	57-12-5	< MDL	mg/L	1	0.002	0.001	

QC Type: Duplicate QC Sample ID: 19051780.01 QCSample Sample RPD Units **RPD** CtrlLimit Parameter Result Result Qual Cyanide, Amenable BRL BRL 0 20

QC Type: LCS and LCSD											
Parameter	LCS Spk Added	LCS Resu <b>l</b> t	LCS % Rec	LCSD Spk Added	LCSD Resu <b>l</b> t	LCSD % Rec	RPD	RPD Ctr <b>l</b> Limit	%Recovery Ctr <b>l</b> Limit	Qual	
Cyanide, Amenable	0.02	0.0200	100	0.02	0.0200	100	0	5	80-120	<del>-</del>	

QC Type: MS and MSD	QC Type: MS and MSD										
QC Sample ID: 19051	780.01										
	Sample	MS	MS	MS	MSD	MSD	MSD		RPD	%Rec	
Parameter	Result	Spk Added	Result	% Rec	Spk Added	Result	% Rec	RPD	CtrlLimit	CtrlLimit	Qual
Cyanide, Amenable	BRL	0.02	BRL							80-120	

Refer to the Definition page for terms.

#### QUALITY CONTROL CERTIFICATE



Analysis: Hexavalent Chromium Method: SM 3500Cr B Reporting Units: mg/L

Samples in This QC Batch: 19051780.03

QC Type: Method Blank							
Parameter	CAS #	Result	Units	D.F.	MQL	MDL	Qual
Chromium, Hexavalent		< MDL	mg/L	1	0.01	0.002	

QC Type: Duplicate QC Sample ID: 19051780.03 QCSample Sample RPD Result Units RPD CtrlLimit Parameter Result Qual Chromium, Hexavalent BRL BRL 20 0 mg/L

QC Type: LCS	Type: LCS and LCSD										
	LC		LCS	LCSD	LCSD	LCSD		RPD	%Recovery		
Parameter	Spk A	dded Resu <b>l</b> t	% Rec	Spk Added	Result	% Rec	RPD	CtrlLimit	Ctr <b>l</b> Limit	Qual	
Chromium, Hexava	elent 0.	1 0.0987	98.7	0.1	0.0987	98.7		20	90-111		

QC Type: MS and MSD	QC Type: MS and MSD											
QC Sample ID: 190517	780.03											
	Sample	MS	MS	MS	MSD	MSD	MSD		RPD	%Rec		
Parameter	Result	Spk Added	Result	% Rec	Spk Added	Result	% Rec	RPD	CtrlLimit	CtrlLimit	Qual	
Chromium, Hexavalent	BRL	0.1	0.0840	84	0.1	0.0819	81.9	2.5	20	90-111	M2	

Refer to the Definition page for terms.

Page

the right to return samples.

The Chain of Custody is a Legal Document

COC TO YOUR PROJECT MANAGER.



# **Sample Condition Checklist**

A&B	JobID: 19051780 Date Received: 05/25/2019 Time Received: 3:5	орм		
Clien	t Name : Intercontinental Terminal Company			
Tem	perature : <b>7.5-0.5=7.0°C</b> Sample pH : <b>&gt;12 CN</b>			
Ther	mometer ID : <b>1707629</b> pH Paper ID : <b>72375</b>			
	1			
	Check Points	Yes	No	N/A
1.	Cooler seal present and signed.		Х	
2.	Sample(s) in a cooler.	Х		
3.	If yes, ice in cooler.	Х		
4.	Sample(s) received with chain-of-custody.	Х		
5.	C-O-C signed and dated.	Х		
6.	Sample(s) received with signed sample custody seal.		Х	
7.	Sample containers arrived intact. (If no comment).	Х		
8.	Matrix Water Soil Liquid Sludge Solid Cassette Tube Bulk Badge Fo	ood	Oth	er
9.	Sample(s) were received in appropriate container(s).	X		
10.	Sample(s) were received with proper preservative	Х		
11.	All samples were logged or labeled.	Х		
12.	Sample ID labels match C-O-C ID's	Х		
13.	Bottle count on C-O-C matches bottles found.	Х		
14.	Sample volume is sufficient for analyses requested.	Х		
15.	Samples were received within the hold time.	Х		
16.	VOA vials completely filled.			Х
17.	Sample accepted.	Х		
18	Has client been contacted about sub-out			Χ
Com	ments : Include actions taken to resolve discrepancies/problem:			
CN: N	aOH+thioLeBell 05.28.2019			

Received by: KKodali Check in by/date: LEBell / 05/28/2019

Phone: 713-453-6060 www.ablabs.com